

**Abstract of the Invention**

The present invention provides for a system and method for integrating an electric motor with an electromagnetic brake. An integral field cup and front end shield is employed to function as both a brake field cup and a motor end shield. The integral field cup and front end shield houses a bearing assembly for the motor and an electromagnetic coil for the brake. Moreover, the integral field cup and front end shield operatively encloses the opposite drive end of the motor. In addition, an internal fan is positioned at the opposite drive end of the motor outside the brake and is operable to cool both the brake and the motor.